empress Reverb



User Manual Version 6.02

Further Information

On our website (www.empresseffects.com) you will find lots of further information and details on the following points:

Download

This manual is also available as a PDF file for you to download.

Keyword Search

Use the search function in the electronic version of this manual to find your topics of inteterest quickly.

Customer Support

If you have any problems with the device our Customer Support team will gladly assist you.

Symbols and Signal Words

Signal Word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning Signs	Type of Danger
	General warning sign
4	Electricity Hazard
	Hot Surface
	Sudden Loud Noises

Intended Use

This pedal is designed for enhancing guitar tones in live performances and studio recordings. Use as outlined in the user manual.

The manufacturer is not liable for damages resulting from improper use or use under non-recommended conditions.

Safety

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	DANGER! Danger for children Dispose of plastic bags and packaging properly to keep them out of reach of babies and young children to prevent choking hazards. Ensure children don't detach small parts like knobs to avoid choking. Never leave children unattended with electrical devices.
4	DANGER! Electrical shock Risk of electrical shock from exposed wires or damaged components. Inspect pedals for damage before use. If damaged, stop use and seek professional repair.
	DANGER! Power Supply Issues Use the right voltage and current for your pedal's power supply to prevent damage and safety risks. Check the power supply's condition, and for multiple pedals, opt for a dedicated supply to avoid overloading by daisy-chaining.
	CAUTION! Overheating Avoid overheating. Do not stack pedals or place in confined spaces. If a pedal overheats, stop using and let it cool.
	CAUTION! Tripping Hazard / Pedal Placement Prevent tripping: Secure cables and place pedals firmly to avoid slips and falls.
	CAUTION! Volume Spikes Beware of volume spikes and unexpected sounds when adjusting pedal settings
	NOTICE! Allergies or Sensitivities Allergy Alert: Some pedal materials, like adhesives and coatings, may cause reactions. Stop use and seek medical advice if needed.
	NOTICE! Fire Hazard Keep away from direct heat and open flames.

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INTRODUCTION

We're stoked you've chosen to make the Empress Reverb part of your sound! We've worked really hard to provide beautiful realistic studio-quality reverbs, as well as many creative new modes. You'll soon discover the tone palette is deep and diverse.

It was important for us to create a pedal that's tweakable but fast to dial in. We wanted all the functions at your finger tips and accessible with your toes. The many advanced configuration options let you customize the pedal to meet your needs, so be sure to check those out.

If any section of this manual is unclear, check our tutorial videos online - sometimes a moving picture with sound is worth a million words.

The Empress Reverb firmware can be updated via an SD card. If you want a say in what features we add to future firmware revisions, sign up for our voting forum at www.empresseffects.com/votingforum

Now go make some music!

Jason Fee - Designer

Steve Bragg - Designer

QUICKSTART

All modes are designed to sound good with all knobs at 12 o'clock. Start there and then tweak to taste.

Concert Hall



Modulated



Ghost



Room



Delay + Reverb



Reverse



MODE REFERENCE CHART

Mode	Description	Thing 1	Thing 2
Hall			
Concert Hall	Classic large hall sound, very warm, slow build, with long smooth decay.	Modulation	Early Reflection Level
Modern Hall	Hall that's very smooth and warm without any modulation.	Pre-Delay Time	Early Reflection Level
Plate			
Classic Plate	Modeled after a vintage plate, works at both short and long decays.	Pre-Delay Time	Bright Early Decay
Studio Plate	Very smooth decay, no modulation.	Pre-Delay Time	Early Reflection Level
Spring			
Bright Spring	In the Fender Twin Reverb realm.	Rattle Decay	Rattle Level
Dark Spring	In the Fender Deluxe realm.	Rattle Decay	Rattle Level
Overdriven Spring	Dirty 60's Surf Sound.	Rattle Decay and Level	Break-up amount
Room			
L.A. Studio	Very Realistic room with dense early reflections. Great at short decays.	Pre-Delay Time	Early Reflection Level
Sparkle			
Sparkle	Adds smooth octaves and long decays.	Sparkle Level	Sparkle Length
Glummer	Octave down and up.	Octave down blend	Octave up amount
Modulation			
Modulated	Very smooth and adds lots of thickness, width and airiness to the sound.	Modulation Rate	Modulation Depth

Chorused Reverb	Similar to <i>Modulated</i> but a more muted sound in the mid range frequencies.	Modulation Rate	Modulation Depth
Flanged Reverb	Has a wide-sweeping flanger type effect on the output.	Modulation Rate	Modulation Depth
Tremolo Reverb	Tremolo is applied after a smooth hall reverb.	Tremolo Rate	Tremolo Depth
Ambient Swell			
Triggered Swell	Detects pick attacks and fades in the notes, eliminating attack in the reverb line.	Swell Time	Modulation
Gate Swell with Octave	Has a gate that then feeds a dense set of delays with octave. It will fade in your playing to create smooth swells.	Gate Attack	Octave Up volume
Freezification	The select stomp provides a freezification of the sound.	Transition Speed	Frozen Sound Level
© Seed	The sweet sound of a growing tail with lots of modulation, and width that opens wide while it decays.	Diffusion	Size
Delay+Reverb			
Single Tap Delay	Adds a delay to the warm hall setting, very cool for lead parts.	Delay Time	Delay Feedback
Blend-able Delay	Delay time is set with select stompswitch.	Blend of delay vs reverb	Delay Feedback
Filtered Feedback Delay	The Hi and Low knobs filter the delay feedback.	Delay Time	Delay Feedback
Skitter	Delays that morph into reverb.	Diffusion	Size

Reverse			
Reverse with Decay	Reverse Reverb with a nice smooth decay.	Reverse Swell Time	Reverse Modulation
Reverse and Stop	Reverse Reverb with no decay.	Pre-Delay	Diffusion
Reversed Delay	Reverse Delay with ability to add Reverb.	Reverse Delay Length	Amount of Reverb added to the reverse delay
Ghost			
Resonant	It's a spooky sounding decay because of aggressive resonances in the response.	Mod Rate	Resonance (aka spookiness)
Casper	A Friendlier, less spooky ghost.	Modulation	Diffusion
Lo-Fi			
50's Radio	Grainy, filtered lo-fi sound with an AM radio quality to it.	Delay Level	Dirtiness
Warble	Distorted and wobbly delay lo-fi sounds.	Warble	Dirtiness
Beer			
Glitch	The reverb tail is fed into a filter that randomly changes between low- pass and high-pass.	Glitch Speed	Glitch Tone - determines the time spent on HPF vs. LPF
Gated Reverb	When you stop playing, a gate mutes the wet signal.	Gate Threshold	Gate Release (10ms - 1sec)
Destroyer Pad	For sternly communicating with household appliances.	Robot screams	Pitch shift

This manual only lists modes that were available at the time of printing.

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For the most up-to-date firmware and manual refer to empresseffects.com

FIRMWARE UPDATES

This pedal has firmware that can be updated with an SD card.

Performing A Firmware Update

1) download the firmware file off the website

www.empresseffects.com/reverb-firmware

2) copy the file to the root directory of the SD card

(a high-capacity SD card that's been formatted FAT32)

- 3) insert the SD card then power on the pedal.
- 4) The preset LEDs should marquee yellow for a bit, then all

turn green when the update is complete.

5) remove SD card, cycle the pedal's power, and you're good!

SD Card Constraints

There should only be one partition on the SD card because the pedal only looks at the first partition on the disk. SD card must be V2 high speed. Nowadays this is the most common type.

Firmware Update Error Codes

The preset LEDs will blink to signal an error:

- 1. unusable card
- 2. V1 card
- 3. V2 standard card
- 4. unable to read disk
- 5. valid FAT volume not found on SD card.

PRESETS

The Reverb has two types of preset systems: the **scrolling preset system**, and the **bank preset system**. Read about each preset system to find which one will work best for you. Select which preset system to use in *Advanced Configuration*.

SCROLLING PRESET SYSTEM

Preset Organization

In *Advanced Configuration* you can select the number of presets you wish to use. The presets are represented by a series of 5 LEDs located just below the knobs. Press the **scroll** stompswitch to scroll through the presets. The preset LEDs will blink. When cycling through the presets after every 5 presets, the preset LED colors will change to another color to indicate you're in the next bank and will start counting again from left to right.

When cycling through the presets you will notice that after your final preset, all the preset LEDs will flash very quickly. This represents the manual preset. If you recall this preset, the Reverb will get its settings from the current knob positions. In the manual preset, no preset LEDs are lit.

You can scroll backwards through the presets by pressing the **select** and **scroll** stompswitches simultaneously.

Saving a Preset

To save the current settings to a preset, press the **scroll** stompswitch until you reach the preset location you want to write to. While the lights are flashing, hold down the **save** button and press the **scroll** stompswitch. Your preset is now saved.

Recalling a Preset

To recall a preset simply press the **scroll** stompswitch until the preset you'd like to recall is flashing, then press the **select** stompswitch to load the preset. The presets LEDs should now be solid and bright.

Changing a Preset

If you change the position of a knob or switch after a preset is loaded, the preset LEDs will dim to indicate that the preset has been modified, but not saved. If you move the knob or switch back to the position it was in when the preset was saved, the preset's LED indicators will brighten again. This lets you find the positions of all the knobs and switches when the preset was saved.

BANK PRESET SYSTEM

Preset Organization

In Advanced Configuration you'll select the number of banks you wish to use. The preset LEDs display which bank is selected by changing color. Each stompswitch represents a preset. So there are 3 presets per bank.

Recalling a Preset and Bypassing the Pedal

To recall a preset, press on a stompswitch. The light above that stompswitch and the bypass LED will illuminate. To load another preset, simply press one of the other stompswitches. To bypass the pedal, press the stompswitch corresponding to the active preset, and the bypass LED will turn off. The pedal is now bypassed.

Changing Banks

To bank up, press the right and middle stompswitches simultaneously. To bank down press the left and middle stompswitches simultaneously. The LEDs will flash indicating the target bank, then you can press any of the stompswitches to load a preset within that bank.

Saving a Preset

To save a preset, set the knobs to the sound you would like to save. Then navigate to the target bank. While the lights are blinking, press and hold the **save** button and select the target preset location by pressing the corresponding stompswitch.

SAVING/LOADING PRESETS TO/FROM SD CARD

To save presets to an SD card, make a directory in the root directory of the SD card called "from_reverb". On startup, the Reverb will populate this directory with all the current presets and the advanced config settings.

To load presets to an SD card, make a directory in the root directory of the SD card called "to_reverb". Presets that are named "xx_reverb.bin", where "xx" is a number between 0 and 35 inclusive, will be loaded into the corresponding Reverb preset slots.

V30 LOOPER

The Reverb contains a multitrack looper which can record loops up to 10 minutes. The looper is available in firmware version 5.03 and up. The latest firmware can be found on our website at www.empresseffects.com/reverb-firmware



The looper requires an SD card that says V30 on it. Numbers larger than V30 (V60, V90, etc.) are ok too.

An SD card must be inserted into the Reverb to operate the looper.



WARNING! The V30 looper will corrupt any data on the SD card, so don't use a card with important stuff on it!

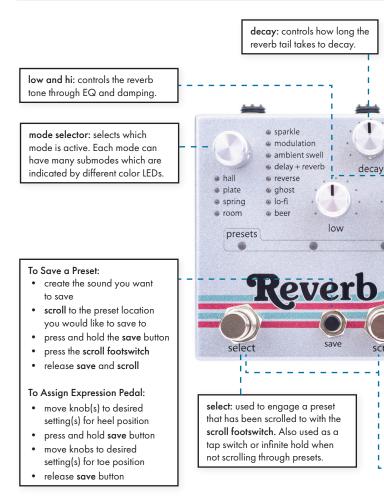
ENABLING THE LOOPER

To enable the looper, enter Advanced Configuration *(see Advanced Configuration)*. Turn the **mode** knob until the Plate Green LED is lit, then turn the **decay** knob clockwise until the second preset LED is lit. The looper will be enabled upon exiting Advanced Configuration.

Effects Routing (making looper pre or post effect)

While still in Advanced Configuration, turn the **mode** knob until the Spring Green LED is lit, and then turn the **decay** knob to select either looper pre (preset LED 1) or post (preset LED 2) effect. Exit Advanced Configuration to save your settings.

CONTROLS AT A GLANCE



mix: sets the ratio of wet signal (reverb) to dry signal (unaffected). Counterclockwise is 100% dry, clockwise is 100% wet, with 50/50 being somewhere around 2 o'clock.

scroll: press to scroll through presets, then engage the preset with the select switch.

111

thing 1

mix

em

hi

oll

111

output

thing 2

select + scroll together: will scroll
backwards through presets.

output: controls the overall output volume for the pedal. 12 o'clock is unity.

thing 1 & thing 2: these two controls take on different functions depending on the mode. They control things like modulation, early eflections, pre-delay, sparkle, octave level, delay time and feedback. Check the mode reference chart to see which function they perform in a given mode.

bypass: engage or bypass the pedal. Can be set for true bypass or buffered bypass in advanced configuration.

USING THE MULTITRACK LOOPER

Entering/Exiting Looper User Interface – press and hold middle and right stompswitches together for 1 second. Now, the stompswitches will control the looper as outlined below, and the preset leds will show the looper state. To exit the looper UI, hold middle and right stompswitches again for 1 second, and you can use the stompswitches to control the pedal as normal while the looper continues to play.

Move Active Track Right – press middle and right stompswitches together.

Move Active Track Left – press middle and left stompswitches together.

Start/Stop Recording - press left stompswitch

Play/Stop - press right stompswitch

Mute/Unmute Active Track - press middle stompswitch

Clear Active Track – press and hold middle and left stompswitches together for 1 second.

Clear All Tracks – move to an empty track and press and hold middle and left stompswitches together for 1 second.

Adjust Looper Playback Volume – adjust the output knob while the looper UI is active.

LOOPER LED COLORS

The state of any given track is represented by the color of its corresponding LED. The bright LED is the active track.

Green	Track is currently playing
Blue	Track is active but doesn't contain any audio
Red	Track is currently recording
Aqua	Track contains audio, but looper is stopped
Yellow	Track is muted
Purple	Track is recording but is muted

Additional Looper Notes:

While in looper UI mode, the knobs still affect the reverb sound, so you can change up the modes or the parameters while in the looper UI.

Any audio tracks that are playing will still play when you exit looper UI mode.

The looper will still play when the pedal is bypassed, unless you have the pedal set to true bypass.

CONTROL PORT

The control port jack allows the Empress Reverb to be controlled by a multitude of devices. The pedal ships configured to accept an expression pedal. Please see the *Advanced Configuration* section on how to configure the control port for the device you plan to use.

EXPRESSION PEDAL

Each parameter, with the exception of the **mode** knob, can be controlled simultaneously via the expression pedal.

To control a parameter with the expression pedal, move the parameter's knob to the desired heel setting, then hold down the **save** button and move the knob to the desired toe setting, then release the **save** button. Multiple parameters can be assigned for expression pedal control simultaneously by repeating this process for each parameter to be assigned. Each parameter can be set with independent heel and toe settings.

To release a parameter from the expression pedal's control, move the knob that controls that parameter.

Any expression pedal used with the Empress Reverb should have the following pinout: tip to signal, ring to power, and sleeve to ground.

CONTROL VOLTAGE (CV)

With CV control, the Empress Reverb responds to CV signals from 0 to 5 volts. Otherwise, the CV configuration works exactly like the expression pedal configuration.

EXTERNAL TAP SWITCH

The Empress Reverb can be used with either a normally-open or a normally-closed external switch. This switch operates like the **select** stompswitch, with the exception of loading presets.

MIDI

All the parameters of the Empress Reverb can be controlled via control change messages. Its presets can be selected with program change messages, and its tempo can be controlled with MIDI clock messages.

To use MIDI with your Empress Reverb, you'll have to:

- Connect the Empress Midibox (not included with the Reverb) using a ¼" patch cable to the control port. A TRS cable is required to send MIDI out messages if you're using the reverb to control other pedals.
- Configure the pedal for MIDI control and set the MIDI channel. See Advanced Configuration for instructions. Choose a MIDI channel that won't conflict with other devices in your MIDI rig.

Recalling a preset via MIDI (Program Change Messages)

You can activate a preset by sending a MIDI program change message. For example, sending a program change message of 7 activates preset 7.

Midi with Preset Out

The Reverb can send out MIDI program changes on the ring of the control port jack whenever a preset is loaded on the Reverb. The Reverb will send out these program changes on the 4 channels above the Reverb's current MIDI channel.

For example, if the Reverb is set to MIDI channel 5 and preset 3 is loaded, the Reverb will send out MIDI program change 3 on MIDI channels 6, 7, 8 & 9.

Midi Beat Clock

Modes that accept a tap tempo input will respond to MIDI clock messages. MIDI clock specifies quarter notes, subdivided into 24 MIDI messages. The Reverb's delay time gets set to a quarter note.

Midi Control Changes

The Empress Reverb can be controlled with MIDI control change messages. Opposite is a table that shows which MIDI control change number controls each Reverb parameter.

MIDI CONTROL CHANGE MESSAGES REFERENCE

Reverb Parameter	CC #:	Note:
Modes	20	The modes and sub-modes are numbered starting from 0 (Hall = 0, Plate = 1, etc.) To translate the modes and sub-mode to a single number you apply the following equation: MIDI message value = (mode x 8) + sub-mode <u>Example</u> : To load the 2nd plate mode, you'd send a value of 9 with the CC message. (1x8) + 1.
Recall Preset	11	Send preset # to recall that preset.
Decay Time	21	Sending a value 0 would be
Mix	22	equivalent to the knob completely counterclockwise, sending 127 is
Volume	23	equivalent to fully clockwise.
Low Damp	24	
Hi Damp	25	
Thing 1	26	
Thing 2	27	
Left Stompswitch - Select	35	Sending a value of 64 simulates a
Middle Stompswitch - Scroll	36	quick tap. Sending a value of 127 simulates the switch being pressed
Right Stompswitch - Bypass	37	and held until a value of zero is sent,
Save Button	38	simulating releasing the switch.
Save Preset	39	0-35 selects which preset the current settings get saved to. In Bank mode the presets that appear are (1,3,5), (6,8,9), etc.
Engage / Bypass	60	0 to bypass, 127 to engage.

Simulate Expression Pedal	10	0 to 127 as the sweep of the expression pedal from heel to toe.
MIDI Clock Listener	51	Sending a value of 0 causes the pedal to ignore MIDI clock messages. Sending a value of 127 causes the pedal to listen for MIDI clock messages. (by default, the pedal listens for MIDI clock)

Additional MIDI Control Change Notes

- MIDI switching cannot be done while in Advanced Configuration.

- the manual preset cannot be used while using the bank preset system.

POWERING THE REVERB

Go to www.empresseffects.com/power for a full list of compatible power supplies.

Please Note: The Empress Reverb requires at least 300mA of current to function properly. Any power supply rated at 9V DC, supplying negative tip polarity () and at least 300mA of current should work.

ADVANCED CONFIGURATION

The advanced configuration customizes how your pedal operates. The options are listed in the table that follows.

Entering Advanced Configuration

While holding down the **select** and **bypass** stompswitches, press the **save** button. All the preset LEDs will blink yellow twice to confirm you're in.

While in Advanced Configuration

Each mode LED represents a different configuration item you can change. Look up the item you'd like to change from the table on the right, then turn the **mode** rotary knob to select it.

Turn the **decay** knob to modify the value of the advanced configuration setting. The preset LEDs will illuminate to show you the current value. For example, if the hall mode light is lit and the 2nd preset LED is lit, you've configured the pedal for buffered bypass operation.

Exiting Advanced Configuration

Hold down **select** and **bypass** stompswitches while in advanced configuration. Preset LEDs will blink yellow twice and the pedal will reboot.

ADVANCED CONFIGURATION REFERENCE

Option	Set mode LED to:	preset LEDs indicate:
Bypass operation	Hall	 True Hardwire Bypass Buffered Bypass* Buffered Bypass with isolation transformer on right output (Note: when transformer is engaged the pedal assumes stereo output operation)
Control port configuration	Plate	 Expression Pedal* Control Voltage Input Normally Open Switch Normally Closed Switch MIDI MIDI with Preset Out
Input pad	Spring	1. No Pad (OdB) 26dB Pad* 312dB Pad
Preset system	Room	1. Scrolling Preset System* 2. Bank Preset System
Number of presets for scrolling preset system	Sparkle	As you turn from left to right the LEDs will illuminate in order to indicate the last preset.
Number of banks for the bank preset system	Modulation	As you turn from left to right the colors will indicate the last bank.
MIDI channel the pedal will respond to (when control port is configured for MIDI).	Ambient Swell	As you turn from left to right the LEDs will illuminate in order to indicate the MIDI channel. (ex. If the 3rd LED is lit, it's going to listen on MIDI channel 3).

Knob Lock - lock the presets so they don't change accidentally on stage.	Delay + Reverb	 Unlocked* Locked - knobs are locked in presets (not manual preset) Total Lock - knobs locked and can't overwrite presets.
Cabinet Simulator puts a cabinet simulation algorithm on the output, useful if you don't have an amp.	Reverse	 Cab sim is off.* Bright 4x12 cab. Dark vintage cab Balanced modern cab
Signal Configuration	Ghost	 stereo in/stereo out.* wet/dry: dry out left, and wet out right. Hardware insert - Pre Hardware insert - Post
Startup State	Lo-Fi	1. Startup Bypassed* 2. Startup Engaged and load Preset 1
Stereo Widening	Beer	 Regular Stereo Width* Stereo Width 2dB wider. Stereo Width 4dB wider.
Mix Knob Taper	lall	1. Wetter* 2. Dryer
Looper	Plate	1. Disabled* 2. Enabled
Looper - Effects Routing	Spring	 Looper pre effect* Looper post effect

*denotes the factory default setting

FACTORY RESET



WARNING! This will overwrite your current presets and advanced config settings and replace them with the factory presets and default advanced config settings!

To restore the Reverb to its factory settings, do the following: while in the advanced configuration (see *Entering Advanced Configuration*): press and release the stompswitches in this order: **Select, Bypass, Select, Bypass**. Then the LEDs do a dance. Now you can exit advanced configuration (see *Exiting Advanced Configuration*).

THANK YOU

Patrick Zdunich for lending his ear and super bug hunting skills when we needed it the most.

Steve Foley for giving us so much input on the functionality and his ears on the sounds.

Dave Bignell for making his studio available to a stranger for a day of listening.

Bova Sound for sampling their wonderful EMT 140 Plate Reverb.

Young coding rock-star **Matt Cyr** for crushing it so hard on the calibration tools.

Chris 'C+++' DeVisser for making us some awesome internal tools we use every day.

Thanks to beta testers **Dan Hay**, **Jordan Craig**, and **Jeff Logan** for their valuable input when we couldn't tell the forest from the trees.

REGULATORY COMPLIANCE INFORMATION

FCC (USA)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party in the USA

Americas Compliance Consulting LLC dba iCertifi 1001 SW Disk Drive, Ste 250 Bend, Oregon 97702 USA FCC_sDoC@icertifi.com icertifi.com

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

ICES-003 (Canada)

CAN ICES-003(B) / NMB-003(B)

CE (European Union)

This declaration of conformity is issued under the sole responsibility of Empress Effects Inc- 105-62 Steacie Dr, Kanata Ontario K2K 2A9. The device identified on the front page of this manual is in conformity with the requirements of the European Union's Electromagnetic Compatibility Directive 2014/30/EU, in accordance with the following harmonized standards:

- EN 55032:2015/A11:2020 Electromagnetic compatibility of multimedia equipment Emission Requirements
- EN 61000-3-2:2014 Electromagnetic compatibility (EMC) Part 3-2: Limits Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
- EN 61000-3-3:2013 Electromagnetic compatibility (EMC) Part 3-3: Limits Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
- EN 55035:2017/A11:2020 Electromagnetic compatibility of multimedia equipment Immunity Requirements

Name: Colin King Title: Design Engineer Company: Empress Effects Inc Date: August 19, 2023 Location: 105-62 Steacie Dr, Kanata Ontario K2K 2A9



WEEE (2012/19/EU)

This product must not be disposed of with regular household waste. In compliance with WEEE regulations, please take this product to a designated collection facility or return to the supplier for proper recycling. Comply with local laws and regulations for disposal. Contact your local authority or

support@empresseffects.com for specific information.



Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling. Ensure that plastic bags, packaging, etc. are properly disposed of. Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling.

Please follow the notes and markings on the packaging.



SPECIFICATIONS

Input Impedance:	1ΜΩ
Output Impedance:	100Ω
Output Impedance (transformer):	600Ω
Frequency Response (-3dB, dry):	10Hz – 50kHz
Frequency Response (-3dB, wet):	10Hz – 23.4kHz
Total Harmonic Distortion (dry):	0.09%
Total Harmonic Distortion (wet):	0.22%
Dynamic Range (dry):	106.9 dBA
Dynamic Range (wet):	105.5 dBA
Input Headroom (dry):	+10.0 dBu
Input Headroom (wet, no pad):	+0.5 dBu
Input Headroom (wet, 6dB pad):	+5.7 dBu
Input Headroom (wet, 12dB pad):	+10.8 dBu
Output Headroom:	+16.2dBu
Power Voltage:	9V DC (center negative)
Power Input Connector:	2.1mm Barrel Connector
Required Current:	300mA
Height (enclosure only):	1.75"
Height (including controls):	2.25"
Length:	5.7″
Width:	3.75"
Weight:	1.5lbs

www.empresseffects.com